

# Material Data Sheet

## for: (201) - Gold - Au-4N

### 1. Composition

|                 |        |
|-----------------|--------|
| Au group-metals | 99.99% |
| Au              | 99.99% |

### 2. Physical Properties

|   |                                       |
|---|---------------------------------------|
| Melting point                                 | 1063°C                                |
| Density                                       | 19.3 g/cm <sup>3</sup>                |
| Young's Modulus                               | 79 GPa                                |
| Colour  | yellow                                |
| Linear Coeff. of thermal expansion (25-500°C) | 15.3x10 <sup>-6</sup> K <sup>-1</sup> |
| Electrical resistivity (at 20°C)              | 2.31 μOhmcm                           |

### 3. Mechanical Properties

|                             | soft          | cold worked |
|-----------------------------|---------------|-------------|
| Hardness HV5                | 600°C/30'/H20 | 50%         |
| Tensile strength (Rm)       | 20            | 65          |
| 0.2% Proof stress (Rp 0.2%) | 130 MPa       | 220 MPa     |
| Elongation                  | 25 MPa        | 4 %         |
|                             | 45.0 %.       |             |

### 4. Certification

Manufacture and delivery are constantly monitored according to the quality management system standard according to ISO 9001.

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